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24 November 1957

**BRIEFING FOR PREPAREDNESS INVESTIGATING
SUBCOMMITTEE OF CONGRESS****SUBJECT: SOVIET LONG-RANGE BOMBER AND
SUBMARINE FORCES**Long-Range Bomber Force

4.6 Soviet progress in the guided missile field is impressive, and a substantial ICBM threat could come into existence all too soon, but at the present moment, the major Soviet threat to the continental US is still the manned bomber capable of carrying nuclear weapons. Here Soviet progress has also been impressive.

4.7 The USSR started almost from scratch at the end of World War II, during which it had no real strategic bombing force, and has since built up a force of at least 1,500 long-range bombers, with necessary supporting facilities. In forming a first nucleus for this force, the USSR took advantage of our B-29 design, copying it in the BULL medium bomber. (The term BULL, incidentally, like the other aircraft designations I will refer to, is a nickname used by US intelligence for convenience:

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the Soviets call their version of the B-29 the TU-4). BULLS were produced in large numbers - peak Soviet operational strength in BULLS was between 1,100 and 1,200 in 1954 and early 1955.

3.48 While BULL strength was being built up, Soviet designers were working on native long-range bombers in both the medium and heavy categories. (This chart shows the results of their work.) By 1954 they had developed and began to have in operational units the BADGER jet medium bomber, approximately equivalent in performance to our B-47. As BADGER began to enter service, a gradual phase-out of the BULL was begun. By 1955 they had developed and began to have in operational units two different heavy bomber types, the BISON jet heavy bomber, approximately equivalent to our B-52 and the BEAR turbo-prop heavy bomber. (The chart gives our estimates of some key performance characteristics of these newer bombers. These estimates are at present under review in the light of accumulating evidence. It is probable that there will be some downward revision in estimated performance, at least with regard to the speed and altitude capabilities of the BISON.)

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4. With regard to capabilities to attack targets in the continental US -- in general terms, the BADGER with a 10,000 lb. bombload can reach most such targets on one-way missions from staging bases in the Soviet Arctic. Inflight refueling would increase BADGER capabilities against US targets, but would still offer little prospect of return to the USSR. However, the BISON, launched from Arctic staging bases, could reach some US targets on unrefueled two-way missions, and could reach considerably more of such targets if refueled en route. The BEAR, with its greater range capabilities, could reach virtually all US targets on two-way, unrefueled missions from staging bases, and with inflight refueling could accomplish the same missions from bases well inside the USSR.

5. Soviet Long Range Aviation, as of mid-1957, includes at least 1,500 bombers, of which we estimate about 550 are BULLS, about 850 are BADGERS, and at least 90 (possibly as many as 150) are BISON and BEAR heavy bombers. We have

~~Comparison of Heavy Bomber Estimates~~

~~Estimate for 1 April 1956~~

~~(given to Symington Committee in testimony): 90 in units~~

~~Revision for 1 July 1956~~

~~(given to Symington Committee by memorandum): 65 in units~~

~~In the revised estimate we projected a heavy bomber strength of 220 and jet medium bomber strength of 700 for 1 July 1957~~

~~In both original and revised estimates, our long-term projection was 800 heavy bombers (500 BISON, 300 BEAR) in~~

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just completed an estimate on the Soviet long-range bomber force, in which we devoted special attention to a thorough review of all the evidence on the heavy bomber program, as of mid-1957. Good evidence indicates that a minimum of about 90 heavy bombers ^(Bisons plus Bears) are now available, for operational units, and the majority view in the intelligence community is that this is likely to be the actual strength. Beyond this point of good evidence, however, there is an area of considerable uncertainty, and there is some evidence suggesting that operational heavy bomber strength may be as much as 150 aircraft.

6.⁵¹ In either event, the Soviet heavy bomber program has again fallen somewhat behind our projections of the previous year. This is true of at least BEAR production, and, if the lower figure is the more accurate one, of BISON production as well. On the other hand, BADGER production has somewhat exceeded our expectations. While we are still checking to determine the amount of short-fall in heavy bombers, and the reasons for it, it does seem that the strenuous Soviet efforts to get heavy bombers into

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production, in the period up until 1955, have not been *confirmed* matched in the past year or so.

7. The explanation may be in part in the field of technical problems. For example, it is possible that larger-scale production has been delayed pending the availability of higher-thrust engines or other developments expected to improve performance characteristics. But there is also a serious question regarding Soviet intentions in the heavy bomber field. Soviet planners are aware, of course, that they already have a strong medium bomber force which they could employ in case of need. They also probably have great confidence that advanced weapons systems, including ICBMs, will become available to them in the relatively near future.

In this connection, we have noted statements of Khrushchev and others, stressing the view that the manned aircraft is declining in importance as contrasted with guided missiles. Such statements have been publicized extensively in the Soviet press, and may in part be intended to cover up for delays in heavy bomber production or to

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pave the way for a de-emphasis in the bomber program. However, they are also clearly part of an effort to take maximum propaganda advantage of Soviet successes in the missile and earth satellite field, and are probably also a deliberate effort to degrade the capabilities of present US retaliatory forces in the eyes of the Soviet people and the Western world.

8. ⁵³ While long-term Soviet policy with regard to heavy bombers is thus in doubt, on balance we believe the USSR will retain a strong long-range manned bomber force (I am here referring to both medium and heavy bombers), at least until new weapon systems are proven and a substantial capability has been acquired.

9. ⁵⁴ In any event, Long Range Aviation is the major current threat, and its capabilities are still increasing. Specifically, heavy bombers are in production, and medium bombers are being produced at a rapid rate. The total force has increased by at least 200 bombers in the past year. An inflight refueling capability has been developed, apparently using convertible tanker-bomber versions of the BISON and BADGER, and we

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believe it is in at least limited use by operational BISON units. The trend in training activities is toward larger-scale, long-range operations, including flights to potential forward staging areas. And finally, there is evidence that the USSR has established nuclear weapons storage facilities in the vicinity of the home bases of its long-range bomber force.

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Submarine Force

⁵⁵ 1. Dr. Scoville has described Soviet capabilities in the field of cruise-type missiles suitable for launching by submarines. The USSR has a large force of submarines available for modification or conversion to guided missile use, and could already have suitably modified submarines in operation.

⁵⁶ 2. Through a postwar building program unprecedented in peacetime history, the USSR has built a submarine force which (as of mid-1957) numbers approximately 475 boats, ~~a total which exceeds the combined submarine strength of all the other navies of the world.~~ This strength, incidentally, is *more than* ^{eight} ~~ten~~ times the submarine strength with which Germany entered World War II, and is greater than Germany's peak sub strength in May 1943. About 250, or more than half, the USSR's subs are snorkel-equipped long-range units of postwar design and construction.

⁵⁷ 3. Soviet subs are deployed in the four major fleet areas - Baltic, Black Sea, Pacific, and Northern.

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We are particularly interested in the large concentration of 115 long-range subs in the Northern Fleet area. This area has unrestricted access to open seas; its waters are normally navigable the year round.

4. ⁵⁶ We noted with interest Khrushchev's statement, in 1955, that "a submarine equipped with guided missiles is the most suitable naval weapon, and its development will be emphasized by the Soviet Navy." Any of the present Soviet long-range submarine types could be equipped to carry one or two cruise-type missiles in topside stowage, and as an interim measure, the USSR would probably equip them in much the same manner as those of the US Navy - with storage housings and launching ramps on deck. We have not yet confirmed the existence of such Soviet submarines, but we have received reports from widely-separated areas describing subs with suspicious-looking topside installations. The USSR could also construct nuclear or conventional-powered submarines, about the size of their present long-range boats, to accommodate up to four cruise-type missiles internally.

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5. In this connection, we have recently become aware of a significant change in the Soviet submarine construction program. It now appears that construction of conventional long-range submarines has been sharply curtailed this year. This, we believe, probably signals the termination of this program and a shift to the construction of new types, probably including nuclear-powered and guided missile launching designs.